

## ABSTRACT OF THE DISCLOSURE

A hydrocarbon sensor of the present invention includes a substrate made of a solid electrolyte that conducts protons, and a pair of electrodes formed on the substrate, and at least one electrode of the pair of electrodes contains Au and Al. Assuming that a content of an Al simple substance in one of the pair of electrodes is "a" mol%, and a content of aluminum oxide therein is "b" mol%, "a" and "b" satisfy a relationship:  $a + 2b \leq 7$ .  
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